

Logotypes: form and effectiveness

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Summary

This text consists of a synthesis of the work carried out and theoretical reflection prior to the empirical research currently underway. It focuses on the study of formal factors with regard to their function in the effectiveness of the visual sign. The images on which work is done are brand signs. We are concerned with determining the relationships between formal variables and legibility and impact, as well as the relationships between the latter in their determination of the effectiveness of the message. On entering this field we find that certain theoretical and methodological problems must be resolved before beginning the empirical research.

The starting point

The aim of this study was to investigate the relationship between legibility, impact and effectiveness, focussing on the purely formal determinants of the effects of the visual messages. We wished to focus on the methodological isolation of the effects of the plastic sign; in other words, we were embarking upon a project about experimental psychological aesthetics of visual forms.

We did not commence from specific variables whose effects we intended to verify. Our final aim was rather that of determining what the formal variables significant to the effectiveness of the messages are, and how they behave. Our approach is hence exploratory. We then reached the conclusion that the best way of approaching this was to take a sufficiently wide sample of preexisting messages. Brand symbols, logotypes and signs in general appeared to us to be the most appropriate, in view of their specificity as regards complexity, and the relationships between the plastic and figurative dimensions that characterise them.

We have not overlooked the function of another fundamental component: the connotative plastic meaning. Effectiveness will be determined as much by the suitable level of legibility and impact produced by the forms, as the connotations that they evoke. However, dealing simultaneously with these three dimensions is not feasible.

Problems of a theoretical and methodological nature even arise methodologically isolating the study of the variables: the realization of a pilot test has uncovered problems such as the determination of the most appropriate indicators to measure legibility and impact; the working definition of the indicators; measuring them; the need to rely on other determinants of the effects of the signs, such as the degree of susceptibility to the context; and even the relative weight of the initial dimensions (legibility and impact). However, as these are issues that we are unable to include in an article such as this one, we will restrict ourselves to the basic theoretical problems for the moment.

Pregnancy, legibility and impact

a) The definition of pregnancy as the force of the form leads to a polysemic utilization of the term which tends to confuse.

In the original Gestaltic meaning, pregnancy is defined in these terms: 'organisation will be as good as the conditions allow it' (Katz, 1943; Koffka, 1935). This form or organisation was 'best' identified with conditions such as 'unity, uniformity, good continuation, simplicity and closing' (Koffka, p205), or indeed 'regularity, symmetry, group harmony, homogeneity, balance, maximum simplicity, conciseness' (Katz, p45). Others, such as Arheim speak of the trend towards the most defined figure possible.

It is Moles (1971) who identifies it with the force with which the form imposes itself on the observer's attention. This author introduces both the key to clarify the subject and, paradoxically, to make it even more ambiguous. He clarifies it in the sense of relating pregnancy to the smallest effort necessary in order to perceive a form. Hence, a form will be more pregnant the greater its contrast as a figure respect to its background is (as a signal with respect to the noise from which it is extracted). This will be facilitated, for example, by being more isolable, outstanding, closed and structured in relation to a background without clear limits.

This greater contrast and ability to stand out, can be identified with the simplicity of the form; taking into account that this could be a product, for example, both of uniformity (minimum simplicity according to Koffka), and of a perfect articulation (maximum simplicity). Simplicity is thus seen as a relative category. This does not necessarily entail, for example, a greater number of elements, but rather that a greater number of more easily organizable elements would be equal to a greater simplicity of the resulting form. Definitively, simplicity will also be so for a certain observer and in relation to a certain context. The best way of understanding it is, then, identifying it with the least informative expense on the part of the perceiver.

The most simple, or pregnant, form will hence be that requires the least information in order to be identified (least effort). In other words, it will be the most probable, in terms of one or other of the codes shared by the subject who perceives, that is to say, the most predictable. In this sense, for example, it is comprehensible that *familiarity* should be one of the factors which favours the pregnancy of a form. Moles (1972, p160)

also indicates that there are two procedures possible to reduce the information of a message: reduce the number of elements or increase the redundancy, thus augmenting its predictability. It is possible to see the relation with the double notion of simplicity asserted by Koffka and how it links it to the concept of information.

In the sense in which we have spoken of it until now, pregnancy would consist of the force of the form to establish itself as such, before other forms that could emerge from the same luminous magma. The one which would win the battle would be the one which required less information to be structured in opposition to the background.

Moreover, due to discussing the 'force with which the form imposes itself on the attention', the concept of pregnancy has also come to be used in the sense of the force of a form to impose itself on the receiver, not in relation to other alternative forms but with respect to the other forms which with it relates in one wider visual context. Our attention is drawn to the fact that this aspect is more related to the relative visual impact, caused by the form in relation to its context, than to the *internal syntaxis of the form itself*.

This second sense of the term pregnancy is far closer to the concept of force or compositive weight, used in studying the syntaxis of the visual composition in order to refer to the force of attraction of each form among those already established as such (Arnheim, 1974; Marcé, 1983).

b) We will now examine the definition that is usually given of the legibility of a message. Moles, referring to printed texts, identifies legibility as the 'capacity of a text to be read quickly, easily understood and well memorized' (1971, p414). In another of his works he provides a definition which can be generalized more: 'the more forms (Gestalt) a human being can distinguish or project upon it, the more intelligible a system is. This is the same as saying that the more predictable the recurrences of the elements, the more intelligibility there is, an idea that the theory of information expresses by means of redundancy' (Moles, 1972, p56). Consequently, redundancy could be taken as a measurement of intelligibility.

From another field, Lynch, referring to the urban landscape and its capacity to generate an 'atmospheric image' (mental representation of the physical means), makes allusion to the legibility of this landscape as one of the conditions. He understands it as being 'the

facility with which its parts can be organised into a coherent pattern' (Lynch, 1960, p11); and also as 'the quality of a physical object which gives it a great probability of evoking a vigorous image in any observer' (Lynch, p19).

If we analyse and compare the different definitions presented, it will not be difficult to identify the categories of legibility and pregnancy, the latter in its first sense (force of the form to establish itself as such). It will also be easy to understand redundancy as its indicator, provided that it entails constrictions which reduce the possible variety of any system, reduction of the number of possible combinations, inequality of probabilities, predictability, presence of order, organization or structure, or, definitively, reduction of the information transmitted.

c) Another unavoidable relationship is that exists between legibility and impact, is, the second sense associated with the category of pregnancy. A striking form is one which imposes itself more forcefully on the attention of the receiver, meaning that it is more relevant for the receiver in the framework of the selective mechanism of 'attention'. Highly predictable forms are more easily processable by their nature providing little information. If we focus our preferred attention on a configuration it is owing to the fact that it is of greater interest; it breaks an expectation; it provides more information, requiring more effort to be processed or integrated in its context. This leads us to embark upon the concepts of novelty or originality. Originality is equivalent to an increase in information and it is hence a factor in direct correlation to impact. This ultimately embodies surprise, which is to say greater reduction of uncertainty or greater information, the two being the same.

The dimension of the effectiveness of the message

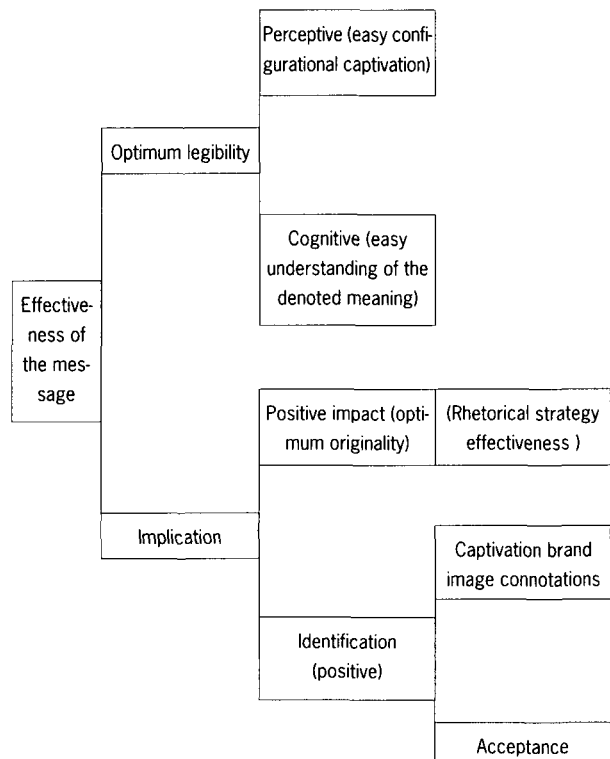
We shall now look at the way in which we could articulate the functions of the factors examined, in view of the research of the effectiveness of visual forms in general and of 'visual brand signs', which we shall particularly focus on in our research. We must also examine what other factors should be taken into account because of their relationship with the aforementioned effectiveness.

This issue was already dealt with in a previous work pertaining to research into communication, applied to

the design of a product (Marcé, 1989). However, the distinct character of the type of messages studied leads us, in this case, to a reformulation of some of the proposals previously made.

In the case of objects, we are able to differentiate primary and secondary functions. We can relate the effectiveness of the object to the fulfilment of the primary functions and its capacity of implication with the secondary ones. The effectiveness would include both the fulfilment of the primary effective functions (praxic) and of the primary conceived functions (capacity to transmit its use or uses as denoted meaning transmitted by the form). The implication would suppose the transmission of those connotative meanings (aesthetic message, according to Moles), capable of persuading the receiver that the object is attractive.

In the case of visual brand signs, the sole primary function which they possess is of a conceived (denotative) type: transmitting a determined recognizable identity. Furthermore, in the said case, the primary function is at the service of implication, unlike that which can be considered in the case of objects. We can not therefore identify the effectiveness of the message here with its primary functions.



The diagram should be more like the following: the effectiveness of the message embodies both, being easily recognized, sufficiently distinguishable from other similar ones, and likewise capable of transmitting the brand image desired.

Legibility and impact will be the two fundamental factors, with regard to the effectiveness of the symbol or logotype, decontextualised from the rest of the corporate image creation strategy, that is, with regard to the mere condition of the visual sign. In all cases, those aspects belonging to the aesthetic message (connotations), associated to the purely formal characteristics or the exclusive figurative denotation of the brand must be taken into account, and their congruence with the brand image they endeavour to represent and looked at. However, this would only be feasible in a pre-test phase using iconograms which the experimental subjects did not know. If this were not the case it would be impossible to separate them from the associations already existing due to their daily use and familiarity.

The optimum balance between legibility and impact, or between redundancy and originality, is truly presented to us in the field of iconic brand signs, as the *authentic crux of the matter*, similar to the case of the publicity message: the first determinant of the effectiveness of the message. Furthermore, it will be necessary to establish what is the relative weight of both dimensions with respect to the said determination. It is possible that the most plausible solution, lies in forms which are sufficiently legible so as to be identified quickly, but which at the same time permit the integration of some highly informative (original) element, capable of guaranteeing their impact. This leads us to the need to establish what that 'optimum threshold of legibility' could be, as well as to having to determine its complement: 'the density of acceptable originality' (Moles, 1971; 1972).

This proposal coincides with that afforded by varying researchers of perception. Our natural adaptative tendency is to introduce order, organisation, that is, to reduce to the maximum the information of any collection of stimulations presented to us. Whilst our expectations are being confirmed the perceptive process is automatic. Conversely, the attention mechanism becomes focal, that is, it is detained in order to analyse in more detail, those aspects which are unexpected. Gombrich (1979) speaks of 'visual accent' to refer to these discontinuities (of whatever type) which attract the attention of the receiver. Lindsay and Norman indicate that 'a classic maxim in order to compose an attractive

graphic form consists of providing a focal point of interest, including some kind of break in the repetitive configuration' (1972, p12). The definition of rhetorical figures is based on the same principle: they are qualified as false transgressions of the code, which show the receiver something predictable for her, but do it in an unexpected way.

The balance between redundancy and information must thus be considered from two differing and complementary perspectives. On the one hand, in order to achieve that the visual sign itself, that is with regard to its internal configuration, gives rise to a well defined and identifiable structural unit. On the other hand, in order to achieve that the concrete sign in question is sufficiently powerful, original or distinguishable in relation to the whole collection of existing brand signs.

From the former point of view, in speaking of focal attention we are referring to the search, in the immediate memory, for formal features which allow us to construct a coherent and unitary form. Conversely, when we speak of the force with which the form imposes itself on the attention of the subject, we are making reference to the second point of view. This also concerned a process of selective attention, but a more general one; aimed not at separating what is relevant to identify the forms in the perceptive process but rather at what is relevant to our widest adaptive social context. In this sense, it would be more appropriate to speak of selective retention of the message, depending on the level of information it carries; that is, its storage in our long term memory (knowledge of the world).

Visual brand signs do not form part of more complex sign configurations, but rather are independent signs, always presented in relation to a neutral background. We are thus able to see, for example, that a factor, at first negative, as would be its possible internal ambiguity, can become a usable resource. Instead of entailing a negative factor, it can end up being exploitable as a way of producing the 'visual accent', or the rhetorical tactic, which makes it original with regard to the rest of the existing signs.

This further suggests that the degree of relevant originality will not be relevant in relation to all of the possible forms in general, but instead in relation to the type of common constrictions in the existing repertoire of visual brand signs. An ambiguous form can be striking as a visual symbol, providing that this is not one of the characteristics usually applied to visual symbols. The originality of a visual brand sign will not be an intrinsic

and definitive characteristic. It will depend on its relationship with the universe of existing iconic brand signs and will evolve according to the changes that appear in the general repertoire. A sign which is not particularly pregnant due to its slight structuring, as could be the case with many of the 'childlike logos' which have appeared in this country in recent years, may be highly original and, consequently, effective. However, when this type of signs begins to proliferate, it soon loses its potential to be striking: its slight internal definition and limited capacity to be identified thus emerges, making it much more difficult to distinguish it from others. This leads us to propose that a new dimension in relation to effectiveness must be taken into account: the possible importance of the greater or lesser dependancy of the form, with regard to the context in which it is perceived. The constancy, stability or level of autonomy, in relation to the variations in its decodification conditions.

Variables relevant to research into effectiveness

We must now state exactly what the types of formal variables which must be considered are, given that in the last instance, they must be those which allow us to find explanations as to the reasons for the greater legibility or impact of the varying configuration types, as well as the reason for its greater or lesser effectiveness. It is relevant to examine the syntax and rhetoric of plastic codes. It is important to distinguish two main components within the scope of the plastic sign: on the one hand certain relationships and contents of a perceptive nature, and on the other, these are produced or transmitted by means of the use of a series of resources and relationships of a graphic nature.

In the Hjemselevian sense, we could understand that the perceptive level constitutes the substance and the conventional graphic level the plane of the expression of plastic-perceptive codes. Their content level would be produced by a system of aesthetic connotative meanings. We stated earlier that initially we do not wish to go into research of the latter. We could also understand that from another perspective, the perceptive level constitutes that of the phenomenic meanings, denoted by the graphic (plastic) forms. We are thus dealing with the representational perceptive level, or perceptive plastic, whose pertinent units, as well as the morphological and syntactic relations between them, constitute the primary material for a perceptive plastic rhetoric.

The autonomous study of the perceptive level is not of relevance. Nevertheless, it is possible to consider the perceptive level as being the lowest on a hierarchy of levels. However, it is also possible to study it, not according to those, but isolating it from them, in order to examine its autonomous laws, even though the message is complex. It embraces all of them because it is the base one. The others can be reduced to relationships between forms, regardless of its figurative meaning. This will be so particularly when we deal with abstract signs. In figurative signs, we are interested in isolating the aesthetic effect characteristic of the plastic component, within the iconoplastic strategy. Alongside this we will autonomously analyse the relations or characteristics of conventional graphic codes involved through which relations or characteristics the said perceptive organisations are transmitted. However, it is necessary to indicate that the figurative or iconic aspect can never be marginated in any of the cases. We think of the importance of the law of experience in which it refers to the perceptive codes. Sooner or later it will be necessary to take iconicity into account, albeit only as a mere 'contextual' variable with regard to the perceptive plastic effects. We thus find ourselves with two types of basic codes (perceptive and graphic) and with a perceptive plastic rhetoric, resulting from the interactions between them, as sources from which to extract the formal variables significant to our research. Hence, we must separately analyse the strictly perceptive codes and the graphic conventional codes. This is in spite of the fact that as we move from determining the pertinent units to determining the relationships and transformations, the relationship between plastic and perceptive codes will present itself to us as being more intertwined, more difficult to separate. This is exactly another one of the theoretical problems which must be resolved to be able to proceed.

Plastic, perceptive or rhetorical codes?

We shall not go into what refers to strictly perceptive codes, given that they are widely known already. By this we mean all the laws expounded by Gestalt's theories, and more recently analysed very clearly by authors such as Kanizsa. This concerns the six basic laws of organisation of the form, and all of the derived laws, which make the separation of figure/background possible, according to the pregnancy of the result.

With regard to the plastic codes and the determination of pertinent plastic units, the distinction of three basic types of plastic signs is generally recognised: those which affect the environment of the *form*, those relating to the *colour* or *tone*; and those which embrace the field of the texture (Groupe, 1992; Wong, 1993). From these three types, the form presents itself as the fundamental one. It is also that on which we focus our attention, according to the aims of this research. The form, however, is not something independent, merely definable in lineal and geometric terms. The latter will only be possible in its maximum level of representational diagramming, or indeed for the purposes of a methodological isolation of the said categories. The effects, of line, contour or form for example, can and will be produced habitually, having the tone, colour or texture as basic material.

Consequently, although the latter must be isolated in order to examine their own characteristics, they also appear as subordinate to the formal laws of organisation, which are always, in the last analysis, of a perceptive nature. The laws of the plastic level thus meet with the organisation of the form in what we early called perceptive plastic level.

We earlier stated the difficulty we would find in analysing the units and relationships of the plastic codes with regard to their isolation of effects and relationships of a perceptive type. On analysing the form, Wong discusses modules, submodules and supermodules. Their discrimination, paying attention to the hierarchical intergration of levels, will be difficult when we deal with complex formal configurations resulting from the relationships between graphically isolated fundamental units. However, the situation will be further complicated if the present units are not graphically isolated. If these are in 'contact', and not limited to a simple tangency, but, for example, to a hypothetical union or superposition; then, the reality will be that we will have a unitary complex stain. Its decomposition into simple forms can easily lead to confusing its perceptive effect with what should be its strictly graphic characteristics.

Wong, for example, clearly confuses the possibilities of graphic design programmes for a computer, or definitively the process of graphic formalisation, with the reality of the stain effectively produced. It is only thus that one can talk about operations like the superposition, union, or subtraction between fundamental modules, which are amodal (virtual) effects of a perceptive nature, as if they were graphic relations. The conclusion

would be that it is practically impossible to separate the graphic plane from the perceptive one. Although that should be so in the last resort to determine the relevance of the graphic variables, for methodological purposes, it will be necessary to try to resort to the minimum level of possible confusion between both planes.

We can thus say that, by Occam's principle of economy, we shall opt for the simplest of the initial alternatives between forms, which will after perceptively integrate or segregate themselves. That has two conditions: on the one hand, that the said starting point is based on components of a modal nature (of sensorial modality) and not amodal or virtual; on the other hand that the said components likewise possess a graphic and not only perceptive nature (illusory figures possess sensorial but not graphic modality). This solves only a part of the problem, but it does give us a possible path to follow.

The confusion between perceptive and graphic codes becomes particularly clear in the said authors in their analysis of some of the possible graphic structural organisations. It is necessary to make reference to two particularly important cases: those which Wong calls 'structure of contrast', and 'structure of anomaly' and which, in one way or another, appear in all the authors. With regard to the structure of contrast he identifies it as irregular structures. In the sense of them being based on a series of opposition relations, there is nothing to object to.

However, when they are examined on another level, the contrast as contraposition of opposing organisations; then we come across the clash of perceptive expectations. The same happens in the case of the anomaly, until isolated or infrequent contrast within a structure: this would take us to the concept of 'visual accent' (Gombrich, 1979) and therefore to the perceptive plane.

Nevertheless, contrast, anomaly or transgression constitute the starting points for rhetoric. Manifest rhetoric tactic appears as such, owing to its relation of deviation with regard to a conceived zero degree, which it refers to. In order to exist as such, it must take to the receiver, in the decodification, the captation and neutralization of the transgression of a perceptive expectation. The visual form sets itself up as rhetoric figure from the moment in which it is recognised as a deviation with regard to another more probable form. Rhetoric strategies are indeed defined as starting from the type of effect produced, and from what the bases of the said effect are. They entail an implicit transformation that leads the receiver to capturing the perceived enunciation as not syntactic, and as of their consideration as

rhetorical (transgressive), they lead him to projecting on itself a conceived enunciation (zero degree), on which the transformation would have been applied.

The plastic language, significant for the receiver, can not strictly be only perceptive or only plastic (graphic): it is perceived plastic. This will therefore be the rhetorical or aesthetical level, in which the 'effect of composition' (Marcé, 1983; 1990) is produced, a product of the two types of implicated relations and identifiable with the final reception effect in phenomenological terms.

In the way in which the enunciated constructs an order, a pattern, this provides the zero degree and its deviations with the rhetorical effect. Here, Gombrich's (1959) principle of 'etcetera' would come into play, the tendency to continue any pattern, to close it according to the expectation it creates, definitively the tendency to force organisation. This supposes for the m Group the high impossibility of defining a general zero degree and the dependency on a local zero degree. We can contradict them if we bear in mind that transgression does depend on the rules of a preestablished code: the laws of perceptive organisation. The general zero degree always implies a perceptive dimension based on the pregnancy of the result. Correspondingly, neither can the local zero degree, even if we face a weakly codified system, be independent of the existence of a general zero degree: the isotopy, the homogenous domain established by the mutual qualification between the signs that combine, will be determined by the behaviour of the whole collection of perceptive organisation laws.

It seems then that it must be on the perceptive plastic rhetoric plane, with all of the necessary variations with regard to strictly perceptive or graphic elements, where we must define the significant variables to research the effectiveness of the visual sign.

Bibliography:

- ARNHEIM, R. (1954, 1974). *Art and visual perception (Psychology of the creative art)*. Madrid: Alianza, 1979.
- GOMBRICH, E. H. (1959). *Art and illusion (study on the psychology of pictorial representation)*. Barcelona: Gustavo Gili, 1979.
- GOMBRICH, E. H. (1979). *The sense of order. Study on the psychology of decorative arts*. Barcelona: Gustavo Gili, 1980.
- KATZ, D. (1943). *Psychology of the form*. Madrid: Espasa Calpe, 1967.
- KKOFFKA, K. (1935). *Principles of psychology of the form*. Buenos Aires: Paidós, 1973.
- LINSAY, P. H.; NORMAN, D. A. (1972). *Processing of human information. An introduction to psychology. Vol. 1: Perception and recognition of forms*. Madrid: Tecnos, 1976.
- LYNCH, K. (1960). *The image of the city*. Barcelona: Gustavo Gili, 1984.
- M. GROUPE (DUBOIS, J. et al.). (1992). *Treatise of the visual sign. For a rhetoric of the image*. Madrid: Cátedra, 1993.
- MARCÉ I PUIG, F (1983). *Theory and analysis of images. An introduction*. Barcelona: Ed. Univ. Barcelona.
- MARCÉ I PUIG, F. (1989). 'Object, design and research into communication'. In: *Temas de Disseny*, n. 3, pp. 75-81.
- MARCÉ I PUIG, F (1990) *Conduct and communication. A systematic perspective*. Barcelona: PPU.
- MOLES, A. A. (1972). *Theory of information and aesthetic perception*. Madrid: Júcar, 1976.
- MOLES, A. and col. (1971). *Comunicación and the mass media*. Bilbao: Mensajero, 1975.
- WONG, W. (1993). *Foundations of design*. Barcelona: Gustavo Gili, 1995.